

**Claims**

1. Method for refining surfaces of structural parts made of reinforced-reinforced plastics materials that may be deformed by means of extrusion or thermal molding, characterized in that, firstly, a plastics material film is placed on a mould, which displays the topography of the surface of the structural part, in that the film may already display the final desired properties with regard to the structure and optionally the color of the surface, in that the film is deformed in accordance with the topography of the surface of the structural part, in that the preformed film is inserted into a corresponding mould, in that, in a process that is adapted to the composition of the semi-finished product, a reinforced-reinforced plastics material, preferably with a thermoset or thermoplastic matrix, is applied to the side of the preformed film that is not the surface, and in that, after the reinforced-reinforced plastics material has hardened or cooled, the finished structural part is removed from the mould.
- 25 2. Method according to claim 1, characterized in that the preformed film is placed on one of the molding tools of a press, into the female mould or onto the male mould, in that the reinforced-reinforced plastics material, in the form of a mat or a polymer melt, is placed on the counterpart of the tool of the press, and in that, in a pressing process that is adapted to the composition of this semi-finished product, the preformed film is connected to the mat or the polymer melt.
- 30 35 3. Method according to claim 2, characterized in that reinforced-reinforced plastics materials that were produced using the long-reinforced-reinforced

thermoplastic (LFT) process, the glass-mat-reinforced thermoplastic (GMT) process or the sheet-compound-compound (SMC) process are used as the materials and semi-finished products.

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4. Method according to claim 1, characterized in that the preformed film is inserted into a mould, in that a fiber mat is placed under the cavity of the film, in that the mould is closed and filled with a mixture of resin and hardener, and in that the mould remains closed until the injected resin has hardened.

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5. Method according to any one of claims 1 to 4, characterized in that a plastics material film comprising a coating layer is used for refining the surface of the structural part.

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6. Method according to any one of claims 1 to 4, characterized in that a two-coat or three-coat coextruded film comprising a colored layer is used for refining the surface of the structural part.

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7. Method according to any one of claims 1 to 4, characterized in that the film-refined surface of the structural part is coated with effect colors.

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8. Structural part made of reinforced-reinforced plastics materials, produced by the method according to any one of claims 1 to 7, characterized by a plastics material film that is preformed in accordance with the topography of the surface of the structural part and that may already display the final desired properties with regard to the structure and optionally the color of the surface, on a reinforced-reinforced plastics material, preferably comprising a thermoset or thermoplastic matrix.

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9. Structural part according to claim 8, characterized in that the plastics material film comprises a coating layer for refining the surface of the structural part.  
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10. Structural part according to claim 8, characterized in that the film is a two-coat or three-coat coextruded film comprising a colored layer for refining the surface of the structural part.  
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11. Structural part according to claim 8, characterized in that the film-refined surface of the structural part is coated with effect colors.